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EXAMINER

LIN, KENNY S

ART UNIT PAPER NUMBER

2154

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/727,965

Applicant(s)

SHASTRI, VIJNAN

Examiner

Kenny Lin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12, 15-18 and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lacks proper antecedence basis:

- i. the client – claim 1, line 7 (i.e. do you mean the client content provider?);
- ii. the base station – claim 1, line 7 (i.e. do you mean the base server?);
- iii. the client – claim 1, line 11 (i.e., it is uncertain whether “the client” here refers to “the client” of line 7, which maybe referring to the client content provider, or “a client” in line 8 referring to a user. Please specify.)

- b. The following claim language contains problem:

- i. As per claims 3 and 15, there are no period, “.”, at the end of the claims;
As per claims 9 and 21, there are two periods, “..” at the end of the claims.

Correction is needed.

- c. As per claim 1, the use of the word “characterized” is inappropriate since 35 U.S.C. 112, second paragraph, requires the claim to particularly point out and distinctly claim the invention, not merely its characteristics. Furthermore, if this

word is eliminated, then the remaining format of the claim should be modified in order to reflect this correction.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 9-10, 13-14 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al (hereinafter Harvey), US 6,519,568, in view of Sadiq, US 5,960,424.

6. As per claim 1, Harvey taught the invention substantially as claimed including a system for efficient streaming of media content from a client content provider to individual Internet destinations, comprising:

- a. An Internet-connected base server for job initialization and tracking (col.3, lines 36-39, 44-48, col.8, lines 22-46, col.12, lines 31-37, col.14, lines 10-22); and
- b. A matrix of Internet-connected node servers, at least some of which are to receive the streaming media content (col.3, lines 36-42, col.9, lines 40-51, 64-67, col.24, lines 60-67, col.25, lines 1-6);

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Characterized in that the client, the base station and the node servers each execute cooperative software (col.8, lines 66-67, col.9, lines 1-2, 13-18, col.12, lines 24-28, col.13, lines 14-19), wherein a client requests a job session of the base server (col.4, lines 38-44, col.5, lines 20-22, col.12, lines 41-49), specifying dimensions of the job (col.4, lines 38-44, col.12, lines 41-58), and the base server creates a unique job object defining the job (col.12, lines 41-58), receives the streaming content from the client (col.3, lines 36-39, col.9, lines 40-51, 64-67, col.15, lines 18-22, col.24, lines 60-67, col.25, lines 1-6), governs distribution of the streaming content to the matrix of node servers according to the job object (col.25, lines 14-36, 44-54), and monitors progress and status (col.16, lines 19-24, col.25, lines 52-54).

7. Harvey did not specifically teach to notify the client content provider of progress and completion. However, Harvey's teaching of tracking and monitoring the progress and status (col.16, lines 19-24, col.25, line 52-54) enables users to check whether the progress is complete or not. Sadiq taught to notifies the client content provider of progress and completion (col.8, lines 18-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey and Sadiq because Sadiq's teaching of using notification helps Harvey's system to notify the status of the distribution progress.

8. As per claim 13, Harvey taught the invention substantially as claimed including a method for efficient streaming of media content from a client content provider to individual Internet destinations, comprising steps of:

- a. Requesting, by the client content provider of a base server, creation of a job object defining the job by dimensions supplied by the client content provider (col.4, lines 38-44, col.5, lines 20-22, col.12, lines 41-58);
 - b. Creation, by the base server, the job object requested (col.12, lines 41-58);
 - c. Receiving, by the base server, streaming job content from the client content provider according to the job object (col.3, lines 36-39, col.9, lines 40-51, 64-67, col.15, lines 18-22, col.24, lines 60-67, col.25, lines 1-6);
 - d. Distributing, by the base server, the job object and streaming job content to individual ones of plural nod servers at the Internet destinations (col.3, lines 36-39, 44-48, col.25, lines 14-36, 44-54); and
 - e. Monitoring, by the base server, of progress and status of the job according to the job object (col.16, lines 19-24, col.25, lines 52-54).
9. Harvey did not specifically teach to notify the client content provider, by the base server, of progress and completion of the job according to the job object. However, Harvey's teaching of tracking and monitoring the progress and status (col.16, lines 19-24, col.25, line 52-54) enables users to check whether the progress is complete or not. Sadiq taught to notifies the client content provider of progress and completion (col.8, lines 18-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey and Sadiq because Sadiq's teaching of using notification helps Harvey's system to notify the status of the distribution progress.

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10. As per claims 2 and 14, Harvey and Sadiq taught the invention substantially as claimed in claims 1 and 13. Harvey further taught that wherein the base server specifies a server list of all servers to which media content is to be streamed as a part of the job object created (col.12, lines 41-43, col.14, lines 31-34).

11. As per claims 9 and 21, Harvey and Sadiq taught the invention substantially as claimed in claims 1 and 13. Harvey further taught that the status of the job can be tracked and monitored (col.16, lines 19-24, col.25, line 52-54). Sadiq further taught that wherein, as each node server completes a job, notification of completion is passed to the base server, which updates the client content provider of progress made (col.8, lines 18-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey and Sadiq because Sadiq's teaching of using notification helps Harvey's system to notify the status of the distribution progress.

12. As per claims 10 and 22, Harvey and Sadiq taught the invention substantially as claimed in claims 9 and 21. Sadiq further taught that wherein, after all nodes servers have completed a job and have reported to the base server, the base server closes the associated job object and updates the client content provider associated with the job object (col.8, lines 18-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey and Sadiq because Sadiq's teaching of using notification helps Harvey's system to notify the status of the distribution progress.

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13. Claims 3-5, 7-8, 11-12, 15-17, 19-20 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey and Sadiq as applied to claims 1-2, 9-10, 13-14 and 21-22 above, and further in view of "Official Notice".

14. As per claims 3 and 15, Harvey and Sadiq taught the invention substantially as claimed in claims 1 and 13. Harvey further taught that wherein, following creation of a job object at the base server, the base server transmits a notification email to at least a first one of the node servers, and then streams the job content to the first node server (col.14, lines 37-44, col.15, lines 18-22). Harvey and Sadiq did not specifically teach to transmit the job object. Official Notice it taken that it would have been obvious to include objects as attachments in email messages. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the job object as an attachment in Harvey's notification email transmission process to inform the node server more thoroughly of the upcoming job content streaming.

15. As per claims 4 and 16, Harvey and Sadiq taught the invention substantially as claimed in claims 3 and 15. Harvey further taught that wherein the base server transmits notification email to plural ones of the node servers, and streams the job content to the plural node servers (col.14, lines 37-44, col.15, lines 18-22). Harvey and Sadiq did not specifically teach to transmit the job objects. Official Notice it taken that it would have been obvious to include objects as attachments in email messages. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the job object as an attachment in Harvey and Sadiq's

notification email transmission process to inform the node server more thoroughly of the upcoming job content streaming.

16. As per claims 5 and 17, Harvey and Sadiq taught the invention substantially as claimed in claims 3 and 15. Harvey further taught that wherein the first node server, having received the job object, becomes a source server, and transmits the job object and streams the job content to further ones of the node servers (col.14, lines 62-67, col.15, lines 1-22).

17. As per claims 7 and 19, Harvey and Sadiq taught the invention substantially as claimed in claims 1 and 13. Harvey further taught that the streaming of job content is in response to job submission (col.4, lines 22-36). Harvey and Sadiq did not specifically teach that wherein the client content provider, having established a first job object at the base server and having begun streaming job content to the base server, establishes a second job object at the base server for distributing second streamed job content to the node servers. However, since all the streaming of the job content is in response to the establishment of the job object in Harvey's system, it would have been obvious to establish a consequent job object to stream a consequent job content to the node servers following the first job object and content streaming. Official Notice is taken that both the concept and advantage of subsequently data distribution is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey, Sadiq and the concept of subsequent data distribution to enable Harvey and Sadiq's system to subsequently process multiple job objects and content streaming to support subsequent data distribution requests.

18. As per claims 8 and 20, Harvey and Sadiq taught the invention substantially as claimed in claims 1 and 13. Harvey and Sadiq did not specifically teach to comprise plural client content providers wherein the base server establishes job objects for individual ones of the plural client content providers and streams job content for plural job objects to plural downstream nodes simultaneously. However, Official Notice is taken that it would have been obvious to implement the system with additional devices and components including having multiple client content providers to provide various types of contents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect multiple client content providers providing different categories of contents to Harvey and Sadiq's system to expand the system and enlarge the variety of contents availability for the system.

19. As per claims 11 and 23, Harvey and Sadiq taught the invention substantially as claimed in claims 9 and 21. Harvey further taught that wherein the base server tracks completion of the job by the matrix of node servers (col.3, lines 44-48, col.4, lines 40-43, col.16, lines 19-24, col.25, line 52-54) and a use of time expiration (col.6, lines 63-65). Harvey and Sadiq did not specifically teach that if the job is not completed by all node servers within a set time, the base server queries the node server or servers failing to complete. However, Official Notice is taken that it would have been obvious to recognize and track the servers that fail to complete the job since Harvey taught to track nodes that completed the job. Furthermore, it would have been obvious to set a time for completing the job to prevent the system for holding the resources when the job failed to be completed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize and query the node servers that failed to complete

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the job in Harvey and Sadiq's system by monitoring the nodes that completed the job. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey, Sadiq and to set a time for the system to complete the requested job to prevent nodes to constantly holding the resources when they fail to complete the job.

20. As per claims 12 and 24, Harvey and Sadiq taught the invention substantially as claimed in claims 11 and 23. Harvey further taught that wherein the base server, receiving no response from the node server, attempts to repair the node server not responding (col.3, lines 44-48).

21. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey and Sadiq as applied to claims 1-2, 9-10, 13-14 and 21-22 above, and further in view of Gell et al (hereinafter Gell), US 5,802,502.

22. As per claims 6 and 18, Harvey and Sadiq taught the invention substantially as claimed in claims 5 and 17. Harvey further taught a first node server having the job object to stream the job content to a second node server (col.14, lines 62-67, col.15, lines 1-22). Harvey and Sadiq did not specifically teach wherein a first node server having the job object attempts to stream the job content to a second node server already receiving streaming job content from a third node server, and the second node server selects between the first and third node servers for receiving streaming job content according to which of the first and third node servers can transmit at a higher rate. Gell taught to select a node server base on various factors (abstract, col.7, lines 14-

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19, col.12, lines 49-67, col.13, lines 1-15, col.16, lines 7-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harvey, Sadiq and Gell because Gell's teaching of selecting source provider help the node server in Harvey and Sadiq's system to select a source provider which can perform better transmission or lower cost.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Farber et al, US 6,185,598.

24. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (703)305-0438. The examiner can normally be reached on 8 AM to 5 PM Tuesday to Friday and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. Additionally, the fax numbers for Group 2100 are as follows:

Official Responses: (703) 872-9306

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-6121.

ksl

May 5, 2004


ZARNI MAUNG
PRIMARY EXAMINER